

ABSTRACT

A photoconductive encoder structure has a grating cogwheel made of light-pervious materials, a sensor and two luminescence elements perpendicular to each other. An incident surface of the grating cogwheel surrounds a protruding surface, and protruding wheel parts divided in equal arc-shapes surround the grating cogwheel for focusing light from a light source by the protruding surface of the grating cogwheel. Moreover, the light is refracted to the corresponding protruding wheel parts for focusing again. Finally, the light is transmitted to the sensor to generate different phase sequence signals. Owing to the structure, a number of cogs surrounding a grating cogwheel is increased, and, at the same time, the structure does not affect convenience in the production process.